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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/555,662	08/25/2000	Hartmut Hillmer	2345/117	9226

26646 7590 03/12/2003

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EXAMINER
ZAHN, JEFFREY N

ART UNIT	PAPER NUMBER
2828	

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/555,662	HILLMER ET AL.	
	Examiner	Art Unit	
	Jeffrey N Zahn	2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Peri d for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 January 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Paul Ip

PAUL IP
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 18, it is unclear what "deviation of wavelength" is being determined, i.e. between the two optoelectronic components or an optoelectronic component and the "desired characteristic wavelength". In addition, it is unclear how the "respective resistance" values are "selectively changed".

Regarding Claim 28, it is unclear how the wavelength tuning of the claimed device is accomplished with the recited claimed structure.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 28-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hazemoto et al. (JP 59204292).

Regarding Claim 28, Hazemoto et al. discloses a device for the wavelength tuning of an optoelectronic component array (Abstract Fig.) having at least two

optoelectronic components (A)(see also Abstract Fig. and Abstract), the device comprising:

a respective at least one resistance heater (B) associated with each of the at least two optoelectronic components (A's) for setting a respective characteristic wavelength (Abstract) of the respective optoelectronic component;

a common voltage or current source; (inherently the device disclosed in Hazemoto et al. includes a common ground)

a respective heater arrangement (Abstract Fig.)(B)(8) connected between each respective at least one heater and the common voltage or current source, (implied of the disclosure because connection to a power source is required to enable operation)

Hazemoto et al. does not disclose the "total resistance of each respective resistor arrangement being variable so as to allow for wavelength tuning." However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hazemoto et al. to include variable resistance arrangements to vary the heat of the laser diodes and therefore the wavelength, since it has been held that the provision of adjustability, where needed, involves only routine skill in the art. In re Stevens, 101 USPQ 284 (CCPA 1954).

Regarding Claims 29-36, the particular claimed features are a matter of design choice since they do not solve any particular stated problem and they claimed invention will work with alternative/equivalent features known to one of ordinary skill in the art. Therefore, these claimed would have been obvious to one of ordinary skill in the art at the time of the invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 18-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hazemoto et al. (JP 59204292) in view of Wakabayashi et al. (US 5373515).

Regarding Claim 18, Hazemoto et al. (JP 59204292) as discussed above in regards to Claims 28-36, inherently discloses the method of Claim 18 with the exception of "...comparing a respective measured wavelength of each of the at least two optoelectronic components with a respective desired characteristic wavelength..." Wakabayashi et al. teaches the use of a wavelength controller, wavelength detector, reference light source and wavelength selective driver to control the wavelength of a laser. (Abstract; see also Fig. 2) It would have been obvious to one of ordinary skill in the art to modify Hazemoto et al. (JP 59204292) to include a reference wavelength/control system to control the wavelengths of the semiconductor elements to enable improved accuracy as taught by Wakabayashi et al. (Abstract)

Response to Arguments

Applicant's arguments filed 09 January2003 have been fully considered but they are not persuasive.

Regarding Claims 18-36 as being rejected under 35 U.S.C. 112, second paragraph, the Applicant makes the argument that the claims are definite. The Examiner disagrees for the reasons discussed above.

Regarding the Applicant's arguments concerning the application of the prior art cited. The arguments are not persuasive because the claims are given their broadest most reasonable interpretation for purposes of examination; limitations are not read into the claims from the specification. Accordingly, the prior art does apply as discussed above. If the 35 U.S.C. 112, second paragraph, rejections are corrected, the cited art may be overcome.

In addition, the Applicant makes the argument that Hazemoto and Wakabayashi references are not combinable. The argument discussed by the Applicant is not persuasive because both references are concerned with the control of a laser wavelength; therefore, the art is analogous.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey N Zahn whose telephone number is 703-305-3443. The examiner can normally be reached on M-F: 8:30-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on 703-308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Jeffrey Zahn
February 28, 2003

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